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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,379	02/15/2002	Yuji Wakimoto	045762-0179	7228

22428 7590 05/24/2002

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WASHINGTON, DC 20007

EXAMINER

NORRIS, JEREMY C

ART UNIT	PAPER NUMBER
2827	# 2

DATE MAILED: 05/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

91w

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/075,379	WAKIMOTO ET AL
Examiner	Art Unit	
Jeremy Norris	2827	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.  
 2a) This action is **FINAL**.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-5 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_ is/are allowed.  
 6) Claim(s) 1-5 is/are rejected.  
 7) Claim(s) \_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 15 February 2002 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 11) The proposed drawing correction filed on \_\_\_\_ is: a) approved b) disapproved by the Examiner.  
     If approved, corrected drawings are required in reply to this Office action.  
 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All b) Some \* c) None of:  
 1.)  Certified copies of the priority documents have been received.  
 2.)  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3.)  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.  
 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
 a)  The translation of the foreign language provisional application has been received.  
 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____.<br> |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)              | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)     |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.<br> | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Priority*

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 16 February 2001. It is noted, however, that applicant has not filed a certified copy of the application as required by 35 U.S.C. 119(b).

### *Drawings*

The drawings are objected to because the sectional views are not properly crosshatched (see MPEP 608.02). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,800,461, granted to Dixon et al. (hereafter Dixon) in view of US 4,931,134, granted to Hatkevitz et al (hereafter Hatkevitz).

Dixon discloses a flexible printed circuit board comprising a component mount section (rigid) and a cable section (flexible) which connects to the component mount section. circuit patterns (11, 12) being provided on the cable section, and covered by a soft laminated adhesive (20, 22) Dixon does not specifically disclose an electronic component mounted to the component mount section [claims 1, 5]. Hatkevitz teaches a rigid-flex circuit board, similar in structure to the invention of Dixon, where a component is mounted to the rigid portion (see col. 3, lines 35-40). Therefore, it would have been obvious, to one having ordinary skill in the art, at the time of invention, to mount components to the rigid portion of the invention of Dixon, as taught by Hatkevitz. The motivation for doing so would have been to transmit signals from the component via the board.

Moreover, the invention of Dixon as modified by Hatkevitz discloses that the adhesive comprises an adhesive which maintains an average thickness at the time of lamination [claim 2], wherein the adhesive comprises an acrylic adhesive [claim 4].

Regarding claim 3, the invention of Dixon as modified by Hatkevitz discloses the claimed invention except for the limitation that the laminated adhesive comprise a polyamide adhesive. However, Examiner takes Official Notice that polyamide

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adhesives are well known in the art. Therefore, it would have been obvious, to one having ordinary skill in the art, at the time of invention, to use a polyamide adhesive in the modified invention of Dixon. The motivation for doing so would have been to take advantage of the physical properties of polyamides as well as their relative ease in manufacturing. Furthermore, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 5,144,742      Lucas et al.,

US 5,499,444      Doane, Jr. et al.,

US 5,633,480      Sato et al.,

US 5,717,556      Yanagida,

US 6,099,745      McKenney et al.,

US 6,288,343      Ahn et al..

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy Norris whose telephone number is 703-306-5737. The examiner can normally be reached on Mon.-Th., 9AM - 6:30 PM and alt. Fri. 9AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Talbott can be reached on 703-305-9883. The fax phone numbers

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for the organization where this application or proceeding is assigned are 703-305-7724  
for regular communications and 703-305-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or  
proceeding should be directed to the receptionist whose telephone number is 703-308-  
0956.

JCSN

May 19, 2002



KAMAND CUNEO  
PRIMARY EXAMINER